

## Strategic Alliance Management Performance - Coordination / Cooperation cycle: action-research study

H. Achelhi<sup>1</sup> and P. Truchot<sup>2</sup>

<sup>1</sup>Laboratoire pluridisciplinaire de Larache, Abdelmalek Essaadi University, Larache, Morocco

<sup>2</sup>Laboratoire ERPI, Lorrain University, Nancy, France

Copyright © 2016 ISSR Journals. This is an open access article distributed under the *Creative Commons Attribution License*, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**ABSTRACT:** The aim of this article is to understand alliances in order to reduce the risks of their fail. Thus, understanding the governance of alliances can provide critical insights into how such ties can be better managed: we focus on the coordination-cooperation relationship.

The first part of this article, we will give a theoretical back ground about cooperation and coordination. A conceptual framework of the coordination/cooperation process is developed. Then, based on action research of alliances projects, we explain a part of strategic alliance management thanks to our management of an alliance project of 14 partners from 7 countries. In order to maximize our comprehension, we realize surveys and interviews. This study high lightens the existence of a process coordination-cooperation which is sequenced and cycled that allows achieving objectives of strategic alliance and also partners objectives.

For improving the performance and the success of the alliance project, it is necessary that the coordination-cooperation process go through different strategic level of different partners engaged in the alliance project.

**KEYWORDS:** Cooperation, coordination, Alliance' performance, action research.

### 1 INTRODUCTION

In his article, which received the « 2014 Dan and Mary Lou Schendel Best Paper Prize », [1] defines strategic alliances like « voluntary arrangements between firms involving exchange, sharing, or co-development of products, technologies, or service ». They are the cooperation and collaboration of two or more independent companies each of which has its own culture, own agenda, and strategy.

An alliance is commonly defined as any voluntarily initiated cooperative agreement between firms or organizations that involves exchange, sharing and/or co-development, and it can include contributions by partners of capital, technology, or firm-specific assets [2]. Strategic alliances are long-term collaborative arrangements between two or more firms to execute specific transactions for mutual gain and to maximize performance through cost reduction, knowledge acquisition, and/or market expansion [3].

Inter-organizational cooperation in networks is becoming increasingly important, and as such there are numerous companies which participate in various networks to gain a competitive advantage. Strategic alliances have quickly become a major strategic tool that few firms can afford to ignore ([4]; [5]; [6]). Andersen Consultancy made a survey in which they researched how important it is for companies to have alliances with companies in the same branch of industry; in this survey 17% of the senior managers indicated that alliances are important, 36% of these senior managers indicated that alliances will have a vital importance within 10 years [7].

Alliances have been seen as attractive vehicles through which companies can grow and expand their scope [8]. Alliances help firms strengthen their competitive position by enhancing market power [9], increasing efficiencies [10], accessing new or critical resources or capabilities [11], entering new markets [12], expand its zone of uncertainty [13] and to get the scale's economy [14]. Strategic alliances' value-creating potential makes them an important source of competitive advantage ([15]; [16]).

Research has concentrated in particular on alliance characteristics and structure such as the nature of the contracts and various factors influencing the relationship. 1975s, transaction cost theory [17] resource dependence theory [18] have been applied to understand why alliances were used as an organization form.

Studies analyzed focuses on the subject of the agreements [19], their importance for firms ([20]; [21]), their configuration ([19]; [22]; [23]), their legal forms ([24]; [25]), the interplay between cooperation and competition ([26], [27]; [28]; [29]).

Some other studies focus on goals. Ref. [30] pointed out top level executives of companies want to establish strategic alliances:

1. Obtain supplementary products and services that they are not able to develop by themselves ([30]; [31]; [32]; [33]).
2. Cospecialize « the synergistic value creation that result from the combining of previously separate resources and knowledge resource ([30], [34], [35])
3. Gain values by bringing together the resources or to create value by developing and accessing strategically critical resources ([14]; [36]; [37]) or values by learning ([30]; [31]; [38]; [39]).

Knowledge has emerged as a central theme in the resource based and alliance literature and is seen as the strategically most important source of competitive advantage ([40]; [41]; [42]; [43]). Some studies have investigated knowledge transfer across organizational boundaries ([44]; [45]; [46]), learning process ([34]; [47]), codified and sharing know-how ([48]; [49]), capability of effectively knowledge transfer [50], or why some companies may learn more than others [51].

Alliance research shows that some firms consistently have greater success with their alliances than other firms do. Researchers have suggested that such firms possess more experience in alliances ([52]; [53]; [54]), others possess alliance capability ([1]; [49]; [53]; [55]).

Studies present the social view of the alliance: Interpersonal relationship [56], trust [57], trust and commitment ([58], [59]), trust and distrust ([29]; [60]; [61]), effects of partners' communication behavior [62], interfere culture [63]. According to [64], cultural differences and linguistic barriers often create problems and frustration between the parties involved in a strategic alliance.

Despite the fact that alliances represent a growing element of business strategy, they are difficult to manage and to make successful. They can become black holes for management time and resources. Alliances between organizations quite often result in failure: between 50 and 80% ([65]; [66]; [67]; [68]; [69]; [70]), or 60-70% (KPMG, 1996) or approximately 60% [71]. More recently, studies have shown that between 30% and 70% of alliances fail [72]. The large number of failures would suggest that there exists a gap between an understanding of alliance formation and the practice of alliance management [73].

Numerous survey have been conducted into the success and failure factors, but the success rates of alliances have not improved: inherent conflict resulting from goal divergence, partner opportunism and cultural differences ([34]; [74]), improper partner selection [47], asymmetrical alliance objectives and an expectation of learning through private benefits ([74]; [75]), partner underinvest in the alliance after achieving its learning objectives ([31]; [75]).

Some scholars have suggested that an ability to effectively manage inter-firm alliances is a source of competitive advantage to firms ([76]; [77]). For [30], few executives have more than a superficial understanding of what drives the economic and competitive consequences of strategic alliances.

Little attention has been devoted to alliance management [78], the objective of this paper.

Our aim in this paper is to present a model of alliance governance, based on our action research of alliances projects, in order to improve the performance of alliance project managers.

The paper is organized as follows. Section 2 present theoretical backgrounds of cooperation and coordination. Section 3 focuses on our research methodology. Section 4 presents our results. A model of cooperation-coordination process will be developed. And finally, conclusions and perspectives of our study are drawn in section 5.

## **2 THEORY AND HYPOTHESIS**

In this part we will present the various theoretical contributions on coordination and that discuss the link between cooperation and coordination in a strategic alliance. We will examine the implications of mutual influence between them and their super additive effect on the alliance project performance.

## 2.1 COORDINATION

« Every organized human activity ... gives rise to two fundamental and opposing requirements: the division of labor into various tasks, and the coordination of these tasks to accomplish the activity » [79].

In order to explain the importance of coordination, [1] asks us to imagine an ideal situation: an alliance is formed between two firms that have complete confidence in each other and face no appropriation concerns whatsoever. Despite this frictionless situation, they must still coordinate the division of labor and the interface of activities and products between them. This creates considerable uncertainty that alliance partners consider at the time they form an alliance and attempt to answer in structuring the relationship. Hierarchical controls can be an effective solution in situations of high anticipated coordination costs. As noted by [80] an important basis for hierarchical controls in their ability to provide superior task coordination, especially in situations involving high interdependence and coordination. Ref. [76] suggests that coordination in the presence of relational controls is superior and that "self-enforcing safeguards" such as relational controls result in lower transaction costs than using formal controls does. Ref. [80] suggests that in innovation contexts "inter-firm trust can be an extraordinary lubricant for alliances that involve considerable interdependence and task coordination between partners."

« Coordination is the process of building programs by gluing together active pieces ». [81]. Inter organizational coordination is formally defined as the extent of routines to coordinate activities and resources with the alliance partner [82]. « Coordination is the process by which an agent reasons about its local actions and the (anticipated) actions of others to try and ensure the community acts in a coherent manner, is perhaps the key problem of the discipline of Distributed Artificial Intelligence » [83].

Ref. [84] defines coordination as the deliberate and orderly alignment or adjustment of partner's actions to achieve jointly determinant goals.

Ref. [85] defines coordination based on the work of [86] as "the management of interdependencies between actors, actions, resources and products."

Coordinate is arranged a set of parts following a logical plan for a specific purpose. The synonyms are commonly offered "arrangement", "order", and «organization". Coordination is a "rational collective order"[87]. Ref. [84] define coordination as the deliberate and orderly alignment or adjustment of partner's share to the detriment jointly accomplish achieve goals. Coordination involves the specification and operation of information-sharing, decision-making, and feedback mechanisms in the relationship to unify and bring order to partners' efforts, and to combine partners' resources in productive ways: its seeks to ensure that partners yield the desired outcomes with minimal process losses [84].

Coordination is broadly understood in the social sciences as the linking, meshing, synchronization, or alignment of actions [88]. « ... When an agent voluntarily enters into a relationship with and adopts the goal of another agent such that the interdependencies between the agents' activities are managed to achieve the goal... » [89].

Teams develop 'habitual routines' [90] that make them less open to change. These consistent behaviors enable teams to perform without allocating additional mental and coordinative effort, but as they become more rigid it becomes increasingly difficult for a team to adapt [91].

Some researchers have argued that coordination is central to team effectiveness ([92]; [93]). Ref. [92] find that coordination positively influences dyadic team performance in flight simulated tasks. Without well-coordinated integration and full cooperation, it would be difficult for allied airlines to reduce through-ticket fares through elimination of double marginalization or efficiency gain.

When teams make important decisions, they must coordinate activities among their members to be effective [94]. In addition, when teams or organizations engage in complex and interdependent tasks, a common (or "shared") understanding of the task is tremendously important.

Teams distinguish themselves from other teams by way of their boundaries, internal structures, behaviors, the attitudes of constituent members, the type of resources they obtain and use, specific language, ... Cultural differences also make cognitive differences between these boundary spanners more likely [95]: they may have different conceptions of required tasks and of the alliance's environment, and may disagree about which task interdependencies and uncertainties are most important, about how much alignment is required or desirable, and about when the right level of alignment has been achieved [96].

The coordination challenges created by this heterogeneity can impede the effectiveness of inter-unit collaboration or "integration", even when employees are motivated to undertake collaborative efforts [97].

Organizations engage in coordination efforts to manage the task interdependence that can flow a given division of labor ([98]; [99]). Coordinating actions is further complicated by the fact that actors cannot assume that their interests and goals are perfectly aligned [100].

A number of researchers present the importance of coordination of alliance activities as a condition of its success ([101]; [102]; [103]). Ref. [104] suggest to intensely coordinate the alliance and to be aware of dysfunctional tendencies that erode alliance value. Ref. [105] show the relationship with coordination and alliance success: having a dedicated alliance function, which is responsible for overseeing and coordinating a firm's alliance activity, was positively linked to greater alliance success.

In order to meet the coordination requirements and to guarantee a holistic management approach in a multi-alliance environment, many companies have established an 'alliance function' ([106]; [107]).

Indeed, firms with the dedicated function achieved a 25% higher long-term success rate with alliances than firms without the function. The mandate for a dedicated alliance management function is broad, as shown by [106] call for it to, "... coordinate all alliance-related activity within the organization and (to institutionalize) processes and systems to teach, share, and leverage prior alliance-management experience and know-how throughout the company." Such an alliance function is also proposed by some authors, although literature on multi-alliance situations normally focuses on specific problems, such as control aspects ([106]; [107]; [108]; [109]; [110]).

Other case-based studies [111] explain the importance of the alliance function for alliance capability and a firm's overall alliance success. First, it facilitates strategic and operational coordination between the firm's numerous alliances. Second, it becomes a focal point for attracting, screening, and identifying appropriate alliance opportunities. Third, it guides individual business units on a variety of alliance-related issues such as searching and selecting appropriate partners, drafting legal agreements, etc. [112]. Fourth, it can serve as a focal point for initiating organization-wide efforts to learn and accumulate alliance management lessons and best practices within a firm. Collectively, these actions not only enable better integration across all alliances in a firm, but also help improve its alliance management skills. Hewlett-Packard, Oracle, Siebel, Citibank, and Eli Lilly are some of the companies that have created an alliance function and achieved greater alliance success ([111]; [113]).

Risk aversion is a potentially important constraint on the use of performance-based incentives in general [114]. Group level incentives may motivate employees to collaborate but also forces them to bear the risks associated with noise in not only their own, but other's performance as well [115].

Coordinating mechanism involves the rhythmic patterns of interacting entities and how (if at all) these rhythmic patterns may converge [116]. There are two primary properties to these rhythms: that of cycle and pace. The term "cycle" refers to one complete implementation of a repeating phenomenon [117] and "pace" refers to the speed in which the cycles entrain, imposing a boundary condition of sorts for the entrainment of cyclic activity [116]. Ref. [118] provide an example of pacing when they refer to "time pacing", which is the rhythmic timing of events such as entering a new market.

Researchers differentiate two central coordination tasks of alliance management: inter organizational coordination (governance of individual alliances) and alliance portfolio coordination (integration of all of an organization's strategic alliance) [119].

Interorganizational coordination ensures that single alliances are governed efficiently and that the legitimacy of transaction between the partners is enhanced [120]. The need for coordinating the alliance portfolio is primarily a result of the interdependences between the individual alliances. Alliance portfolio coordination aims to identify these interdependences, avoid duplicate actions and produce synergies among the individual alliances ([121]; [122]). Further alliance portfolio coordination aims to allocate limited resources to alliance projects that allow maximum profit ensuring conflict reduction, which consider a key advantage of alliance portfolio coordination [123].

Ref. [122] identifies four tasks of portfolio management: strategy, monitoring, coordination and establishment of an alliance management system. For this companies need to create a dedicated alliance function.

Ref. [124] present three coordination factors: Ongoing communication, modularity and tacit coordination.

The ongoing communication is the most intuitive and perhaps the most potent category of mechanisms for common ground necessary for coordinated action [125]. Classical discussions of "feedback" or "mutual adjustment" implicitly invoke the notion of ongoing communication so as to update common ground dynamically to achieve coordination [124]. Ongoing communication is more effective when it occurs between collocated individuals, since it facilitates face-to-face communication in a shared social context [126].

Modularity is a second category of approaches toward coordination. In organizations, the modules are typically interdependent units: project teams, divisions, or firms ... and interfaces include standard operating procedures, design rules, plans, and schedules that specify what each unit must do so that their actions are coordinated. In general terms, an interface is a description of how the modules of a system interact with each other. If designed well, knowledge of the interface to achieve coordinated action are limiting the need for ongoing communication. Thus, whereas ongoing communication constantly updates common ground, modularity involves working with a minimal, constant level of common ground that is embedded in the interface.

Third generic approach to coordination, that relies primarily on tacit coordination. It work in two broad ways: (a) by leveraging preexisting common ground that may not be specific to the task at hand and (b) by building common ground through observation of the work context, and actions and outcomes, rather than direct communication.

Different coordinating mechanisms are applied, ranging from strict centralization to great autonomy of those centers ([127]; [128]).

Ref. [129] argues that coordination is based on two events: the ratification of a proposal and the revision and subsequent ratification of proposals. Like contracts, any form of revision must be met with full and voluntary agreement with all parties.

## 2.2 COOPERATION - COORDINATION RELATIONSHIP

A review of cooperation and coordination related research so far has shown that most studies consider cooperation and coordination issues in isolation from each other [130], or tend to do not difference between them [131]. A better cooperation is assumed to lead to higher performance independent of coordination efforts and vice versa ([132]; [133]).

Few recent studies, however, have begun to examine how cooperation and coordination issues interrelate. They examine: how cooperation/coordination, independently or jointly, impacts the alliance' results. Some studies point the possibility that cooperation and coordination-related relationship characteristics shape performance interactively rather than independently ([98]; [134]; [135]). Other studies have suggested that cooperation and coordination depend on and influence each other and have a joint impact on alliance outcomes that exceeds their combined individual impacts [136].

The distinction between cooperation and coordination has been previously used to delineate the understanding facets of collaboration within organizations ([98]; [135]).

Ref. [137] is based on the micro-sociological approach of inter-individual cooperation in industrial partnerships, differentiates the two concepts in some basic dimensions:

- Coordination is on the prescription plan (« to tell »), it defines an order, a static structure.
- And cooperation on that of action (« to act »), it is a dynamic process.

Some authors present that the cooperation is the most advanced form of coordination ([138]; [139]).

The problem of cooperation (aligning interests) is a problem of motivation, and can be alleviated if not resolved through incentives. In contrast, coordination problems (aligning actions) are fundamentally cognitive in origin, and require shared understanding and common ground to be solved [136].

Two alternative logics can account for such a super-additive effect: inherent complementarity, which suggests that a change in the extent or quality of cooperation changes the impact of existing coordination efforts and vice versa; and mutual incremental reinforcement, which suggest that a change in the extent or quality of cooperation leads to subsequent changes in coordination efforts and vice versa, resulting in an interactive effect over time [140].

According to the logic of complementarity, increasing cooperation should enhance the marginal impact of a given level of coordination and vice versa: better cooperation makes any coordination effort more beneficial and vice versa, or in the more specific sense that a particular cooperation provision enhances the effectiveness of a particular coordination mechanism or vice versa.

## 2.3 COOPERATION-COORDINATION PROCESS

Depending on our literature search, we are the first researchers who discussed the cooperation-coordination process in strategic alliances. Ref. [135] present complementarity between the two levels of alliances: coordination and cooperation. Coordination is related to planning and thinking of the best solution, cooperation is the implementation of this reflection in reality.

Some authors discuss the synergy between the two concepts. In the case of teamwork, [141] discuss the importance of this synergy: « the enterprise's requirement and philosophy and form the high cooperation and coordination synergies to achieve the communal development of the individual and the enterprise and to display the group superiority » [141], which joined [131] conclusion. In the case of alliances, [140] present the necessity of the synergy « cooperation/coordination synergies would be achieved over time even if no complementarity effects existed at any given moment » [140].

Coordination is thinking about the best organization in order to achieve objectives. Coordination is « a set of processes that combine and articulate actions and decisions of different individuals or groups to produce a collective result » [142]. According to this definition, the coordination objective is the collective purpose satisfaction.

We conclude that coordination is organization's thinking that seeks the collective efficiency through actions synergy of different partners.

After actions' coordination, participants execute the process, implement the plan: this is the cooperation level. Cooperation begins with the practical implementation of planned actions.

Each partner seeks, through cooperation, to realize its own objective. Therefore, through cooperation work, partners seek individual effectiveness through the collective work.

**Hypothesis 1.** A planned collective work has two levels: coordination and cooperation.

- Hyp 1a. Coordination seek the collective success,
- Hyp 1b. Cooperation seek the individual success

#### **2.4 COOPERATION-COORDINATION THROUGH ORGANIZATION HIERARCHICAL LEVELS**

It is known that the implementation of actions in organization goes through its different hierarchical levels: strategic, tactic and operational. Strategy includes the early planning and more objective-setting functions while tactics included the action steps, or processes of task accomplishment. Authors present distinctions between strategy and tactics in strategic management literature. « strategy is considered a deliberate planning process (formal), initiated by top management (top-down), based on an elaborate industry analysis (rational) and aimed at designing a cohesive grand strategy for the corporation (consistency) » [143]. Strategic planning consists of planning processes that are undertaken in firms to develop strategies that might contribute to performance ([144]; [145]; [146]). Ref. [147] using an empirical investigations show that strategic planning can contribute to performance of small companies.

In alliances, we have the same kind of organization. Inter-organizational alliances consist of « multiple layers of committees and steering groups or boards and a range of cross-organizational working groups to tackle different aspects of the collaboration agenda » [148]. For [149], there are three representative team types for alliances: executive management, alliance management, and support. Executive management teams are a form of management team that has responsibility for determination of organizational direction and ongoing alliance governance. Alliance management teams operate in the manner of self-managing work teams and are responsible for coordination and delivery of the designated operational outcomes of the alliance. Support teams have responsibility for functions that augment the creation of the relationship or facilitate the delivery of alliance outcomes.

The decision to pursue alliances is often made by an executive level management team, and due diligence is performed by teams of individuals representing finance, legal and tax functions within a firm [150]. Teams composed of representatives from the appropriate operating groups then execute the alliance after the agreement is finalized ([151]; [152]; [153]). Given the numbers of teams interacting in an alliance, it should be no wonder that the inability to manage teams' alliance is considered an important reason such collaborations fail [154].

**Hypothesis 2:** to achieve the goals of the alliance, therefore ensure its success, it is necessary that the coordination/cooperation cycle goes through the different hierarchical levels of the various organizations involved in the relationship.

In order to examine our hypotheses, we based on action-research which lasted more than 4 years.

### **3 RESEARCH METHODOLOGY**

Our goal is to understand as fully as possible the phenomenon of alliance management. In this part of our article, we will present our methodology and explain reasons.

In order to understand the strategic alliances management, it isn't enough to realize an investigation or having a database general study. They may reveal and confirm only explicit knowledge. For understanding and shed light on tacit knowledge, it is imperative to do a research action study, or at least a longitudinal study. This method led us to delve deeply on the machinery of alliances management.

The authors of this article elaborate and managed a Tempus European project –icre@- in order to transfer competences on innovation. This project was between 14 universities from 7 countries. 7 UE and 7 Maghreb : 2 from France, 1 from Italy, 2 from Spain, 1 from Germany, 3 from Morocco, 2 from Algeria and 2 from Tunisia. The project budget is 1, 47 Million euros.

### 3.1 ACTION-RESEARCH PRESENTATION

During the 4 years of long in depth for this alliance, we closely examined project team's interactions. We talk about an action research (AR). « Thus, by design, AR openly engages the researcher and participants in a collaboration mode from the start of a study ([155]; [156]: Qualitative research from start to finish). Also, [157] lays out 10 major characteristics of action research. We will present and discuss each in turn compared to our study.

*Table 1. The 10 major characteristics of action research: applied to our research*

Ref. [157] characteristics	Our case
1) Action research take action	Two researchers of this subject were involved to manage the project. One of them hired at full time. Two other researchers participate to both research and project.
2) AR always involves two goals: solve a problem and contribute to science	As we pointed out earlier, we managed the project, so our first objective is to overcome difficulties. Also, stand back from the action and reflect on it as it happens in order to contribute theory.
3) AR is interactive: cooperation between the researchers and the client personnel, and continuous adjustment to new information	In our formal and informal meeting with all partners, we discuss our observations. Sometimes, partners provide more details if necessary.
4) AR aims at developing holistic understanding during a project and recognizing complexity	We always look to have a broad view of the system works. The multicultural of researchers helped the understanding of situations especially the informal people subsystems.
5) AR is fundamentally about change: understanding, planning and implementation of change in organizations	The aim of icre@ project is the development of innovative training system with each Maghreb partner. We accompanied our partners in the implementation of their actions.
6) AR requires an understanding of the ethical framework, values and norms	The multicultural team, trust between the team and the partners and the open and frank discussions have allowed us to better understand ethical framework, values and norms that flow from principles focus on how the action researcher works with the members of the organizations.
7) AR can include all types of data gathering methods	Our AR is a longitudinal study; we have used triangulation techniques to collect our data. This point will be developed following
8) AR requires a breadth of pre-understanding of the corporate environment, the conditions of business, the structure and dynamics of operating systems and the theoretical underpinning of such systems	Our research began since 2003. We have conducted studies on innovations in the Maghreb environment (Phd) We worked with some partners for several years before the project.
9) AR should be conducted in real time, though retrospective AR is also acceptable	9) Our bibliography research and our vision were developed at 2007, before the beginning of the project. We started the study at the beginning of the project. Somme interviews were conducted few months after the end of the project
10) The AR paradigm requires its own quality criteria	in this research, the aim was to validate our hypothesis and our vision

This action research was conducted from February 2009 to June 2015. It was an opportunity for longitudinal studies on alliance project. This kind of research methodology is well acknowledged to open possibilities of mutual learning between academic and real worlds. The research follows the main intervention principles that aim to produce knowledge for practitioners and create new scientific models [158].

This research is based on an action research explored through multiple data collection methods, which in turn allowed researchers to improve grounding of theory by triangulation techniques [159].

**3.2 DATA COLLECTION**

« There are two kinds of processes to record in social action research, the learning process of the host [practitioners], and the discovery and interpretation process of the guest » [160].

Our data collection techniques are in-depth interviews and discussions, documentary and archive data, and observation. To this list, we add diary writing [161]: the researchers written reflexions on events, ideas and actions as they evolve over time.

For interviews and meeting conversations: during the 6 year’s times frame of our study, the initiative's team of researches continuously maintained close contact with icre@ partners. Formal interviews took place face-to-face and informal conversations were held alongside numerous project meeting: more than 80 days’ work meeting.

Some of the formal interview took place at the central work place of each actor, some meetings in external settings. In addition call-backs were conducted to have more clarification for specific questions in relation with the interview.

We prepared sample questions to prompt interviewees to discuss such disruptive experiences [162]. We formulated questions based on our theatrical lens that allowed us to look for evidence of crucial themes. During the interviews, we tried not only to get a general impression about the course of the knowledge exchange, but also to identify incidents and critical times for each interviewed.

We realize frequently informal exchanges in order to ensure that episodes brought up in the conversations were fresh in the minds of the involved actors, to minimize validity concerns of recollection. Episodic interviews encourage the participant to give a story like account of personal experiences, in particular experiences of changes or disruptions in their daily work [163].

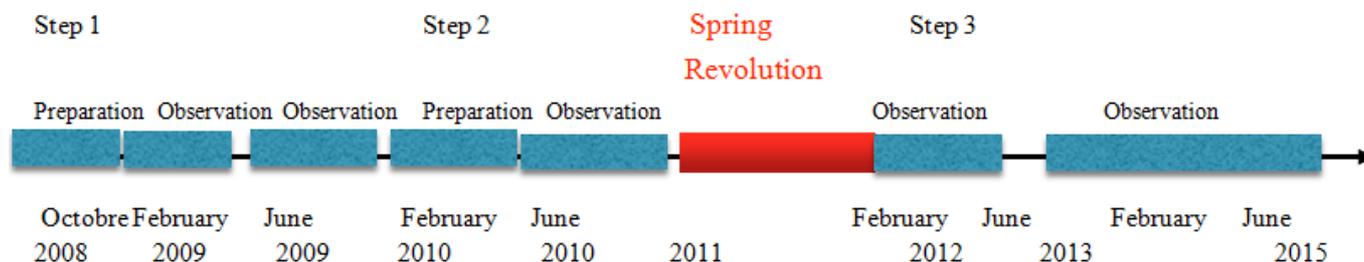
For us, informal data is gathered through active involvement in the day-to-day organizational process. Not only by participation and observation, discussion but also through interventions which are made to advance the project.

At every consortium meeting (two per year), we discuss our observations and we present the next step of the project. We participate also at two roundtable conferences attended by partners to discuss the progress of our observations and research.

Another form of triangulation is the use of multiple investigators [164]. Ref. [159] suggested that the use of multiple investigators leads to a better ability to handle the richness of the contextual data and more confidence in research finding. Our objective is to capture the reality, so we have 4 researchers involved in this study: two at full time (the authors of this article), the others help establish our impartiality as researchers. An action researcher « acts and simultaneously obsesses himself acting » [165]. But he should have someone how observe and help him to do it better.

**3.3 ACTION-RESEARCH PLANNING**

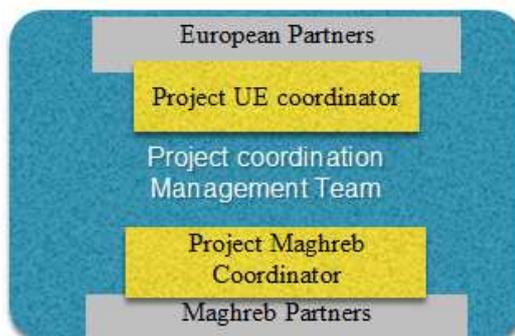
Our action-research has three principals’ steps (fig1.)



*Fig1. Steps of our action-research*

**Step 1 :** From October 2008, the researchers group have worked, to develop an organization that will allow a better management of our alliance project (Fig. 2). The overall organization is bipolar. One of the European partners ensures the administrative responsibility and the European partners’ coordination. One of the Maghreb partners ensures the Maghreb partners coordination. A project engineer coordinates the overall functioning operations. Three representatives from each

part: legal representative, educational representative (either educational director or professor expert in the field of industrial engineering) and administration representative.



**Fig 2: project coordination (1st phase)**

Before the launching of the project, several meetings were arranged between the project team and responsible institutions (Presidents and Directors). After acceptance of the project by European Union, we organized the project launching meeting.

At the project launch meeting (February 2009), we have explained the functioning in the presence of all partners' members. We introduced action plan for the next six months.

For the first year, we observed functioning of all partners. At least two researchers visited each partner once every six months. We discussed with all stakeholders in the project. We sought the level of communication, commitment and understanding of the projects objectives. We asked about the how and why of the actions performed or under way.

We presented our observations and comments to partners at the meeting of the consortium at Tangier in June 2009, followed by a discussion between partners for an exchange of experiences. A scientific discussion took place during a round table organized during the « CONFERE 2009 » conference in Marrakech in the presence of all Maghreb partners' representatives. During this conference, we present our research and our research methodology.

**Step2.** In February 2010, at the consortium meeting at « Barcelona », we presented our observations and comments. Formal and informal discussions have been held with participants.

In April 2010, a questionnaire was sent out to partners. His goal is to understand the internal workings of each partner as well as its advancement level. Supporting documents was requested for each action performed.

In June 2010, at the consortium meeting at "Tunis", we asked the Maghreb partners to present their projects. Then we explained the new organization: we opted for a separate organization because partners' objectives are different. From that moment, instead of talking of an alliance of 14 partners, we can speak of seven partnerships that link the European partners with each Maghreb partner (Fig. 3).



**Fig. 3. Project Coordination (2nd phase)**

The role of the project pilot is to ensure that the overall project objectives will be achieved (UE engagement). This was possible because the partners are not subject to competition and that we brought the guarantee that the interests of each partner will be preserved in the new organization. We made also the guarantee of transparency: two consortium meetings per year of presentation and decision making.

We have also set up an intercultural committee. Its role is conflict management in relation to the cultural dimension between European and North African partners. This committee is made up of people North African origin living in Europe for over 10 years and who are involved in the project since its launch). This decision was following an incident that took place at a meeting. The incident origin was a lack of understanding or a misinterpretation of the message of the project coordinator.

We have established a South-South Committee to ensure exchange and encourage cooperation between the Maghreb partners.

From June 2010, we piloted and observe the functioning of seven partnership projects. This allowed us to make comparisons thus enrich our research.

In January 2011, the Arab Spring affects more or less our Maghreb partners. Seen from Europe, the Maghreb is a risk zone. At the project level, we have seen the change of some leaders (senior) involved in this project. For one of the partners, the university president and the educational representative (an establishment director) were replaced.

The reasons for project continuation and success of alliances despite this crisis will not be discussed in this article. This part will be the object of a future publication.

In March 2011, we asked the EU the opportunity to re-plan the project actions to achieve the predicted objectives.

In March 2011, we organized a consortium in Milan. The objective was to study the impact of the Arab Spring on the project: southern partners' situation, the opportunity to continue the project, commitment to an additional year ...This meeting was more focused on the relational component. We knew that our action area was limited because of the events.

**Step3.** In February 2012, during our consortium meeting in Algeria, we presented our schedule the last 8 months of the project: from March to November

The last step of observation is short. We completed our observation by a survey and a discussion at the closing meeting in "Rabat" in January 2013: a survey was sent in October 2012 to all Maghreb partners to update the information and understand their internal working in the alliance (asking, as before, detailed justifications for each response).

During the period from March 2012 to June 2015, we conducted several interviews and discussions with the people who were involved in the project.

During this period, several meetings between researchers involved in this research are organized: 2 to 3 half-day meetings or one day a year.

### **3.4 INNER WORKINGS OF THE SEVEN MAGHREB-PARTNERS**

The alliance project is built around four objectives: the development of skills through training and supervising, accredited or graduate training, innovation platform and e-learning.

We are going to present our organization and normal operating that we observed of our 7 Maghreb partners.

The project management team consisted of project supervisor, project manager, executive administrator and four responsible (one by objective). Each objective consisted of actions. The project supervisor and project manager is the strategic level. Responsible by objective is the tactic level. The actions responsible and the executive administrator are the operational level. For example, the development of skills through training and supervising is comprised of 12 training modules. Each module has its responsible.

Within each partner, we have:

- legal representative (University President or principal, strategic level),
- Pedagogical representative or local coordinator (vice-president or department head) is the tactical level.
- Executive administrator. For each project action, we have a responsible from each partner. It is the operational level.

Two external auditors inspect and audit each partner actions once a year. They audit the project management team in the middle and at the end of the project.

We were interested in meetings papers and reports: consortium meetings (strategic level), coordination meetings (tactical level) and meetings of each project action (operational level). Then, we have discussed the how and why of things in official meetings, programmed interviews or discussions. It's has been done, in most cases, in both authors' presence, otherwise at least one of them. We cross three information sources: responsible action reports, European expert report and the project auditors' reports.

On the operational level, 27 working groups were formed. All groups were led by a Maghreb responsible except e-learning group:

- The development of skills through training and supervising: 12 groups were formed. Each group, by training module, was composed of an UE expert and 7 Maghreb teachers.
- Accredited or graduate training: 7 groups were formed (one per Maghreb partner). Each group was composed of some Maghreb partner teachers and administrative staff. Each group is supervised by the UE expert.
- Innovation plate-form: 7 groups were formed. Each group is supervised by the UE expert.
- E-learning: one working teams charged to develop e-learning innovation. The group was lead by an UE expert.

During discussions and interviews, we asked them (27 groups' members) to present their internal organizations, their preparations before and after the various events. We were interested also to the results achieved in comparison with what has been requested.

In this article, we will not develop learning component. It will be the subject of a future article. We are interested in the organization in general. It is important to note that all partners had the same level in innovation: a new field.

To carry out our study, we have achieved 46 formal interviews and more than 120 face-to-face and informal conversations. The formal interviews with some persons (responsible and member) involved in the project:

- 6 project management team membres (UE).
- 5 university presidents or principal (Maghreb).
- 11 pedagogical coordinators et Executive administrator (Maghreb)-
- 10 experts of different project actions (UE)
- 14 actions leader (Maghreb)

During this project, we studied the meetings reports held: 7 meetings consortium reports. 72 coordination reports (project management team). 47 pilot reports (project steering meeting). About 200 meetings were conducted by the various working groups. 3 internal audit reports and 2 EU experts audit reports.

## 4 RESULTS AND DISCUSSION

### 4.1 COOPERATION-COORDINATION PROCESS

Throughout this project, we paid particular attention in the organization of different groups and their results.

At consortium meetings (attendance rate: 100% of Maghreb partners- over 80% of European partners), all participants seek to coordinate their efforts to achieve the common project.

Our goals were dependent on the alliance project measurable indicators: number of trainers trained, number of accredited training, number of students trained, number of patents, number of innovation platforms established, number of innovation projects developed, ...So, together, we look the project success. We seek: how each partner can contribute to the success of the project.

After reading internal meetings reports of each partner, we found that, at no moment, the partners seek to achieve the alliance project goals. All their meetings were focused on their specific objectives, sometimes different from the objectives stated in the project report.

*« we have very little obligation to follow exactly what was said at the meeting », « Opportunities should be taken, the window of opportunity is short », « It's an internal team decision » ...* typical response to justify non-compliance of what was written down in the program.

In our discussions and interviews with local coordinators (Maghreb partners) on the general objectives of the project: 57.14% do not know the project quantified deliverables.

For most of them, they are more constraints than goals. At many opportunities, the local coordinator (on behalf of legal responsible) negotiates, out of consortium meeting, the commitment of his institution in the project.

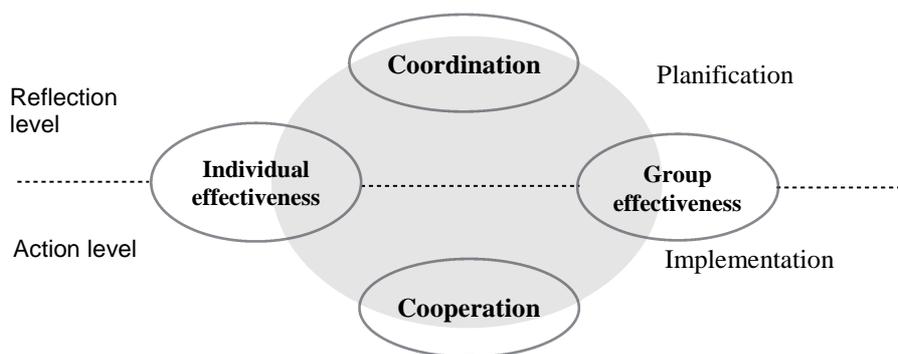
After discussion with members of internal teams of each partner, no one knows the deliverables of their institutions for the overall project. That means that it's not a goal at their internal meetings. Even if, these objectives were presented during their meetings with EU experts, or when moving of the project management team to each partner or at consortium meetings (with all involved partners in the project in attendance of their local team), they don't know the project's objectives.

Asked about reasons for success of this alliance project: for the project management team: achieve project actions and objectives. However, for the partners' local coordinators: the achievement of their own goals.

We can conclude that during coordination meetings (consortium meeting), we look for overall efficiency taking into account all needs and constraints of all partners. It's a win-win relationship. This validates our hypothesis 1a.

However, during the implementation phase, each partner seeks to serve his needs and expectations with little prior consideration being given to the overall project goals. This validates our hypothesis 1b.

We can present (Fig. 4) this complementarity between coordination and cooperation by a spiral that connects reflection to realization. Its goal is the achievement of alliance objectives by satisfying all partner's needs. It is a dynamic vision of collective work.



**Fig 4. Cooperation/coordination process**

**4.2 COORDINATION/COOPERATION THROUGH HIERARCHICAL LEVELS**

At each meeting of the consortium (strategic coordination), the collective interest (the alliance project) is discussed taking into account the interests of each partner. During these meetings, the actions leaders are designated (EU expert). To illustrate the operation, we will give the example of the establishment of Accredited or graduate training (A.G.T.). The leader of this action is B (the initial of her last name).

Following this meeting, each partner brings together the internal team to implement the internal project (Strategic Cooperation): actions and results monitoring. This meeting brings together the university president, local coordinator, executive administrator and department head concerned by the actions to implement. During this meeting, local responsible of each action (local project) are designated.

For our example of accredited or graduate training, responsible for each Maghreb partner are:

**Table 2. List of Maghreb responsible (A.G.T action)**

Partner	1	2	3	4	5	6	7
Responsible action A.G.T.	K	M	J	B	A	B	E

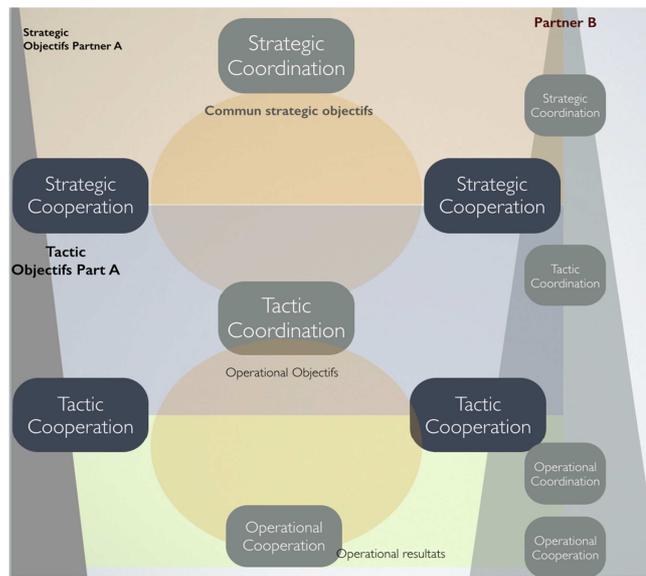
Each local responsible, plans the implementation of its action in coordination with the UE action leader (B). We talk about the tactic coordination. The objective is the coordination between the internal objectives of the partner and objectives of the overall project.

The local responsible sets up an implementation plan with the internal team. We talk about the tactical cooperation. This plan will be validated internally by the University President, and will be communicated and validated by the UE action leader (B, EU).

The internal team puts into practice the action plan (operational cooperation). The local responsible communicates the results to the local coordinator (tactical level) and to the university President (strategic level).

The local responsible inform also the UE action leader who informs the project management team.

During the consortium meetings, local coordinators present actions of their establishments. A global vision per action is presented by the project manager.



**Fig. 5. General organization of the alliance project**

To get results at the project level of the alliance, it is necessary to planify the action at all levels and perform it at the operational level. Therefore, the action must be accepted by all stakeholders. A deadlock in one of the steps between "the strategic coordination" and "the operational cooperation" can lead to fail of the action, consequently, the fail of the alliance (Fig. 5).

We present some examples that validate this process of coordination / cooperation at various levels.

- 1st Example : « International Innovation Week »

Action initiated by the project management team (Not in the original project) held in November 2011. It exceeds the project partners: 28 institutions in 15 countries of 3 continents. For partners (strategic level), hosting of international events help them to enhance its image. For the local coordinators (tactical level), it is a valuation of the work done .For the executive team, it is a new pedagogy for the teachers: learning through projects (operational level). For this event, we had motivation at all levels: successful action.

- 2nd Example : « Shutdown of graduate training » :

During the first year, with the Project Maghreb Coordinator, the main partner of the alliance, we set up the first innovation training in an engineering school. This was a pilot action.

For the President, the engineering school's principal and the local coordinator, this is an action that allows the institution to be more attractive. So Action favored at strategic and tactical levels.

To succeed this training, all teachers, from different faculties and schools, who participated in « the development of skills through training and supervising » action, were invited to teach.

The responsible of this action, head of industrial engineering department and the teachers of the engineering school, felt the participation of the other teachers like an invasion: activities planning, project supervision, .. They asked to replace them in action « the development of skills through training and supervising ». Request denied by the university President and the project management team.

The teachers' team of the engineering school decided to stop training during the second year. The president imposed its opening. After the departure of the President, the team has not applied for accreditation of this training, despite requests from the local coordinator (Vice-President), of their director and also the alliance project supervisor. This incident might result in project failure.

- 3rd Example : « Eggs' game »

It is a practical activity, part of the "Introduction to Innovation" module. Construction' game project of a machine that receives eggs falling from a height of 2m. The raw materials imposed to build this machine are: corrugated cardboard, string, elastic, A4 paper, tape, ruler, ....

If the responsible of the action is not involved, the trainers' teams (expert EU) are forced to look for the raw material in the host country for the success of the action. Sometimes, they may find nothing. So, it's a non-complete action.

- 4th Example : « innovation platform in two locations »

Among actions of the project, the establishment of innovation platforms remains an important action at the originality and investment (100 to 120 k euros per platform) levels.

That partner had decided to open accredited training between the engineering school and the business and management school. The local coordinator was the director of the business and management school. For the platform, the local coordinator decided to put the software part to the engineering school and to put the rapid prototyping machine at the business school. So, Engineering students have never seen the rapid prototyping process. As well, the rapid prototype machine has never worked, because the business school students have not software and do not master the stratoconception technics.

A wrong decision at the tactical level might cause project failure. Because the project success depends on developed innovation projects, patents,

Coordination failure might also be caused from the cognitive limitations of those who design and implement coordination mechanisms, from cultural differences, and from the rigidities and immobility of existing structures.

It is important to note that for groups that have worked well, members have developed relationships between them that go beyond the professional framework, between them and with the EU expert. The participants talk about the « *enjoyment to see the group member* ». « *I participated to help my colleague to realize his objectives* ».

We can conclude that the development of individual relationship influences the coordination quality at all levels.

For the success of the alliance, it is necessary that the coordination/cooperation cycle go through all organizational levels. This validates our hypothesis 2.

The commitment in the alliance project is often a decision of the head of the institution (President or Director). Generally, the responsible of an establishment creates a local team with a manager. The difficulty is that the team members have not always chosen the theme of neither the alliance nor the partners with whom they will work. Thus, individual interests may not coincide with the interests of the establishment or with those of the project. This can be described as an enforced cooperation / coordination.

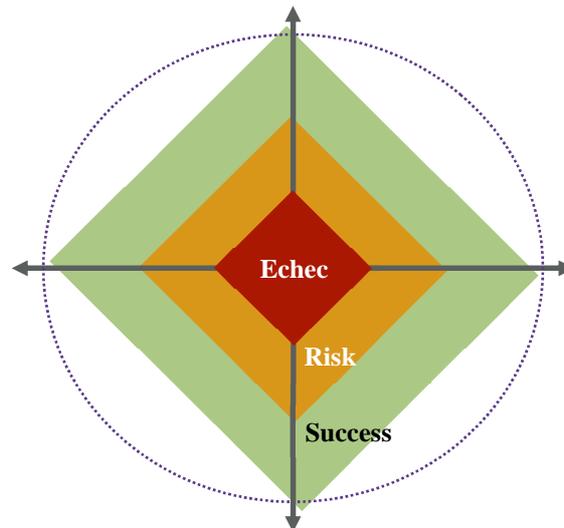
However, the type of interest is not the same for all players. Thus we observed three typical situations:

- 1 / All actors found an interest in the action and in this case, the results are achieved or exceeded.
- 2/ At least one category of actors was little incentive; in this case the results are obtained with difficulty or be partially achieved;
- 3/ One or more categories of actors have no found interest, then the levels of the results are either zero or lower.

This analysis and these observations lead us to propose a representation that is expected to address these situations in the project design phase. On the fig 6, each axis represents an actor and is graduated in three levels of interest:

- Level 0, the player has no interest
- Level 1: the actor has a moderate interest
- Level 2: the actor has a high interest

For each action, we can draw a graph and thus put is highlighted a risky situation or for certain actions, anticipate risks.



*Fig. 6. Interests' level impact on the alliance project*

## 5 GENERAL CONCLUSION

This paper is one of the few studies that shed light on the cooperation/coordination relationship in order to understand the governance of alliances and reduce their fail. Alliance management is a special case of project management. We can define the alliance like a multi-organization multi-project management. Each partner has its own project in the overall alliance project. Each partner's project is composed of actions driven by different responsible. Knowing that multi-project management generally treats the case of multiple independent goals [166], therefore, the risk of failure of projects alliances is very high.

A planned collective work has two levels: coordination which seeks the collective success, and cooperation which seek the individual success. The satisfaction of collective goals by the sum of the individual results is a guarantee of the success of the alliance. Some authors consider that the success of a strategic alliance is determined by achievement of the pursued objectives that were defined in the early stages of the relationship ([167]; [168]; [169]).

For the success of the alliance projects, it is necessary that the coordination/cooperation cycle goes through different hierarchical levels. For that, individual interests, at each hierarchical level should be satisfied. If individual interests may not coincide with the interests of the establishment or with those of the project, a discussion may be enough to revive the work of the alliance. If we do not find common ground, either the change of the action responsible, or working in coordination/cooperation without any motivation. This can be described as an enforced cooperation / coordination.

The team objectives have been discussed like a condition of alliance success: « teams' goals should be closely aligned with those of the alliance » [170].

Coordination depends on the objectives to be achieved and skills and team resources. However, cooperation depends on the coordination thinking, the establishment culture, and on the desire and motivation of team members at various levels to realize the actions.

There are many opportunities for future research:

1. Advance our understanding of when and how formal and informal coordination/cooperation mechanisms.
2. Prevent the failure of alliance projects, so how can we anticipate enforced coordination/cooperation situation in the development of the alliance: developing forecasting tools.
3. How, operationally way, we can develop practice tools to measure rapidly the Effectiveness, Efficiency and Efficacy of a cooperation project.
4. How learning influence participants motivation, and its impact on coordination / cooperation cycle.

## ACKNOWLEDGMENTS

Achelhi & Truchot would like to thank icre@-Tempus project members of different establishments for their collaboration.

## REFERENCES

- [1] Gulati, R. (1998) « Alliances and networks. » *Strategic Management Journal*, 19, 293 - 317.
- [2] Harrigan, K. R. (2007). *Strategic flexibility*. Simon and Schuster.
- [3] Peng, M.W. (2009), *Global Business*, Cincinnati, OH: South-Western Cengage Learning.
- [4] Rindfleisch, A. (2000). Organizational trust and interfirm cooperation: an examination of horizontal versus vertical alliances. *Marketing Letters*, 11(1), 81-95.
- [5] Teng, B. S. (2003). Collaborative advantage of strategic alliances: value creation in the value net. *Journal of General Management*, 29(2), 1-22.
- [6] Shah, R. H., & Swaminathan, V. (2008). Factors influencing partner selection in strategic alliances: The moderating role of alliance context. *Strategic Management Journal*, 29(5), 471-494.
- [7] Baldock, R., & North, D. (2012). The Role of UK Government Equity Funds in Addressing the Finance Gap facing SMEs with Growth Potential. In Conference paper, Dublin.
- [8] Harrigan, Kathryn R. (1986), « *Managing for Joint Ventures Success*. Lexington, MA: Lexington Books.
- [9] Kogut, B. (1991). Joint ventures and the option to expand and acquire. *Management science*, 37(1), 19-33.
- [10] Ahuja, G. (2000). Collaboration networks, structural holes, and innovation: A longitudinal study. *Administrative science quarterly*, 45(3), 425-455.
- [11] Rothaermel, F. T., & Boeker, W. (2008). Old technology meets new technology: complementarities, similarities, and alliance formation. *Strategic Management Journal*, 29(1), 47-77.
- [12] García-Canal, E., Duarte, C. L., Criado, J. R., & Llana, A. V. (2002). Accelerating international expansion through global alliances: a typology of cooperative strategies. *Journal of World Business*, 37(2), 91-107.
- [13] Crozier, M., & Friedberg, E. (1977). *L'acteur et le système*. Paris: Editions du Seuil.
- [14] Das, T. K., & Teng, B. S. (2000). A resource-based theory of strategic alliances. *Journal of management*, 26(1), 31-61.
- [15] Das, T. K., & Teng, B. S. (2001). Trust, control, and risk in strategic alliances: An integrated framework. *Organization studies*, 22(2), 251-283.
- [16] Larsson, R., Bengtsson, L., Henriksson, K., & Sparks, J. (1998). The interorganizational learning dilemma: Collective knowledge development in strategic alliances. *Organization science*, 9(3), 285-305.
- [17] Williamson, O. E. (1975). *Markets and hierarchies*. New York, 26-30.
- [18] Pfeffer, J., & Salancik, G. R. (2003). *The external control of organizations: A resource dependence perspective*. Stanford University Press.
- [19] Porter, M. E. (1986). *Competition in global industries*. Harvard Business Press.
- [20] Contractor, F. J., & Lorange, P. (1988). Why should firms cooperate? The strategy and economics basis for cooperative ventures. *Cooperative strategies in international business*, 3-30.
- [21] White, S. (2000). Competition, capabilities, and the make, buy, or ally decisions of Chinese state-owned firms. *Academy of Management Journal*, 43(3), 324-341.
- [22] Joffre, P., & Koenig, G. (1984). Stratégies de coopération et d'alliance interentreprises. *Enseignement et gestion*, 31, 67-73.
- [23] Teece, D. J. (1992). Competition, cooperation, and innovation: Organizational arrangements for regimes of rapid technological progress. *Journal of Economic Behavior & Organization*, 18(1), 1-25.
- [24] Martinet, A. C. (1988). Les discours sur la stratégie d'entreprise. *Revue Française de*.
- [25] Dubisson, M. (1989). Les accords de coopération dans le commerce international. Lamy.
- [26] Hamel, G. (1991). Competition for competence and interpartner learning within international strategic alliances. *Strategic management journal*, 12(S1), 83-103.
- [27] Parkhe, A. (1993). Strategic alliance structuring: A game theoretic and transaction cost examination of interfirm cooperation. *Academy of management journal*, 36(4), 794-829.
- [28] Khanna, T., Gulati, R., & Nohria, N. (1998). The dynamics of learning alliances: Competition, cooperation, and relative scope. *Strategic management journal*, 19(3), 193-210.
- [29] Lui, S. S., & Ngo, H. Y. (2005). An Action Pattern Model of Inter-firm Cooperation\*. *Journal of Management Studies*, 42(6), 1123-1153.
- [30] Doz, Y. L., & Hamel, G. (1998). *Alliance advantage: The art of creating value through partnering*. Harvard Business Press.

- [31] Hamel, G. (1991). Competition for competence and interpartner learning within international strategic alliances. *Strategic management journal*, 12(S1), 83-103.
- [32] Doh, J. P. (2000). Entrepreneurial privatization strategies: Order of entry and local partner collaboration as sources of competitive advantage. *Academy of Management Review*, 25(3), 551-571.
- [33] Gulati, R. (1999). « Network location and learning: The influence of network resources and firm capabilities on alliance formation ». *Strategic Management Journal*, 20: 397–420.
- [34] Doz, Y. L. (1996). The evolution of cooperation in strategic alliances: Initial conditions or learning processes?. *Strategic management journal*, 17(S1), 55-83.
- [35] Kumar, R., & Nti, K. O. (1998). Differential learning and interaction in alliance dynamics: A process and outcome discrepancy model. *Organization science*, 9(3), 356-367.
- [36] Eisenhardt, K. M., & Schoonhoven, C. B. (1996). Resource-based view of strategic alliance formation: Strategic and social effects in entrepreneurial firms. *organization Science*, 7(2), 136-150.
- [37] Gulati, R. (2007). *Managing network resources: Alliances, affiliations and other relational assets*. Oxford: Oxford University Press.
- [38] Lyles, M. A., & Salk, J. E. (1996). Knowledge acquisition from foreign parents in international joint ventures: An empirical examination in the Hungarian context. *Journal of international business studies*, 877-903.
- [39] Inkpen, A. C., & Beamish, P. W. (1997). Knowledge, bargaining power, and the instability of international joint ventures. *Academy of management review*, 22(1), 177-202.
- [40] Argyris, C., & Schön, D. A. (1978). *Organizational learning: A theory of action perspective* (Vol. 173). Reading, MA: Addison-Wesley.
- [41] Conner, K. R., & Prahalad, C. K. (1996). A resource-based theory of the firm: Knowledge versus opportunism. *Organization science*, 7(5), 477-501.
- [42] Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they?. *Strategic management journal*, 21(10-11), 1105-1121.
- [43] Grant, R. M., & Baden-Fuller, C. (2004). A knowledge accessing theory of strategic alliances. *Journal of management studies*, 41(1), 61-84.
- [44] Dyer, J. H., & Nobeoka, K. (2000). Creating and managing a high-performance knowledge-sharing network: the Toyota case. *Strategic management journal*, 21(3), 345-367.
- [45] Draulans, J., & Volberda, H. W. (2003). Building alliance capability:: Management techniques for superior alliance performance. *Long range planning*, 36(2), 151-166.
- [46] Goerzen, A., & Beamish, P. W. (2005). The effect of alliance network diversity on multinational enterprise performance. *Strategic Management Journal*, 26(4), 333-354.
- [47] Inkpen, A. C. (2000). Learning through joint ventures: a framework of knowledge acquisition. *Journal of management studies*, 37(7), 1019-1044.
- [48] Kale, P., & Singh, H. (1999). ALLIANCE CAPABILITY & SUCCESS: A KNOWLEDGE-BASED APPROACH. In *Academy of management proceedings* (Vol. 1999, No. 1, pp. O1-O6). Academy of Management.
- [49] Kale, P., & Singh, H. (2007). Building firm capabilities through learning: the role of the alliance learning process in alliance capability and firm-level alliance success. *Strategic Management Journal*, 28(10), 981-1000.
- [50] Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic management journal*, 28(13), 1319-1350.
- [51] Martin, X., & Salomon, R. (2003). Knowledge transfer capacity and its implications for the theory of the multinational corporation. *Journal of International Business Studies*, 356-373.
- [52] Simonin, B. L. (1997). The importance of collaborative know-how: An empirical test of the learning organization. *Academy of management Journal*, 40(5), 1150-1174.
- [53] Anand, B. N., & Khanna, T. (2000). Do firms learn to create value? The case of alliances. *Strategic management journal*, 21(3), 295-315.
- [54] Sampson, R. C. (2005). Experience effects and collaborative returns in R&D alliances. *Strategic Management Journal*, 26(11), 1009-1031.
- [55] Kale, P., Dyer, J. H., & Singh, H. (2002). Alliance capability, stock market response, and long-term alliance success: the role of the alliance function. *Strategic Management Journal*, 23(8), 747-767.
- [56] Kelly, M. J., Schaan, J. L., & Joncas, H. (2002). Managing alliance relationships: key challenges in the early stages of collaboration. *R&D Management*, 32(1), 11-22.
- [57] Liu, C. L. E., Ghauri, P. N., & Sinkovics, R. R. (2010). Understanding the impact of relational capital and organizational learning on alliance outcomes. *Journal of World Business*, 45(3), 237-249.
- [58] Cullen, J. B., Johnson, J. L., & Sakano, T. (2000). Success through commitment and trust: The soft side of strategic alliance management. *Journal of World Business*, 35(3), 223-240

- [59] Liu, C. L. E., Ghauri, P. N., & Sinkovics, R. R. (2010). Understanding the impact of relational capital and organizational learning on alliance outcomes. *Journal of World Business*, 45(3), 237-249.
- [60] Krishnan, R., Martin, X., & Noorderhaven, N. G. (2006). When does trust matter to alliance performance?. *Academy of Management journal*, 49(5), 894-917.
- [61] Luo, Y. (2002). Building trust in cross-cultural collaborations: Toward a contingency perspective. *Journal of management*, 28(5), 669-694.
- [62] Mohr, J., & Spekman, R. (1994). Characteristics of partnership success: partnership attributes, communication behavior, and conflict resolution techniques. *Strategic management journal*, 15(2), 135-152.
- [63] Bronder, C., & Pritzl, R. (1992). Developing strategic alliances: a conceptual framework for successful co-operation. *European Management Journal*, 10(4), 412-421.
- [64] Vyas, N. M., Shelburn, W. L., & Rogers, D. C. (1995). An analysis of strategic alliances: forms, functions and framework. *Journal of business & industrial marketing*, 10(3), 47-60.
- [65] Bleeke, J., & Ernst, D. (1990). The way to win in cross-border alliances. *Harvard business review*, 69(6), 127-135.
- [66] Geringer, J. M. (1991). Strategic determinants of partner selection criteria in international joint ventures. *Journal of international business studies*, 41-62.
- [67] Harrigan, K. R. (1988). Joint ventures and competitive strategy. *Strategic management journal*, 9(2), 141-158.
- [68] Kogut, B. (1989). Research notes and communications a note on global strategies. *Strategic Management Journal*, 10(4), 383-389.
- [69] Park, S. H., & Ungson, G. R. (1997). The effect of national culture, organizational complementarity, and economic motivation on joint venture dissolution. *Academy of Management journal*, 40(2), 279-307.
- [70] Yan, A., & Zeng, M. (1999). International joint venture instability: A critique of previous research, a reconceptualization, and directions for future research. *Journal of international Business studies*, 397-414.
- [71] Child, J., Faulkner, D., & Pitkethly, R. (2001). *The management of international acquisitions*. OUP Oxford.
- [72] Bamford, J., Gomes-Casseres, B., & Robinson, M. (2004). *Envisioning collaboration: Mastering alliance strategies*.
- [73] Spekman, R. E., Kamauff Jr, J. W., & Myhr, N. (1998). An empirical investigation into supply chain management: a perspective on partnerships. *Supply Chain Management: An International Journal*, 3(2), 53-67.
- [74] Kale, P., Singh, H., & Perlmutter, H. (2000). Learning and protection of proprietary assets in strategic alliances: Building relational capital. *Strategic management journal*, 21(3), 217-237.
- [75] Khanna, T., Gulati, R., & Nohria, N. (1998). The dynamics of learning alliances: Competition, cooperation, and relative scope. *Strategic management journal*, 19(3), 193-210.
- [76] Dyer, J. H., & Singh, H. (1998). The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of management review*, 23(4), 660-679.
- [77] Ireland, R. D., Hitt, M. A., & Vaidyanath, D. (2002). Alliance management as a source of competitive advantage. *Journal of management*, 28(3), 413-446.
- [78] Draulans, J., & Volberda, H. W. (2003). Building alliance capability:: Management techniques for superior alliance performance. *Long range planning*, 36(2), 151-166.
- [79] Mintzberg, H. (1980). Structure in 5's: A Synthesis of the Research on Organization Design. *Management science*, 26(3), 322-341.
- [80] Gulati, R., & Singh, H. (1998). The architecture of cooperation: Managing coordination costs and appropriation concerns in strategic alliances. *Administrative science quarterly*, 781-814.
- [81] Gelernter, D. (1992). *Mirror worlds: Or the day software puts the universe in a shoebox... How it will happen and what it will mean*. Oxford Paperbacks.
- [82] Gulati, R., Lawrence, P. R., & Puranam, P. (2005). Adaptation in vertical relationships: Beyond incentive conflict. *Strategic Management Journal*, 26(5), 415-440.
- [83] Jennings, N. R. (1993). Commitments and conventions: The foundation of coordination in multi-agent systems. *The knowledge engineering review*, 8(03), 223-250.
- [84] Stanleigh, M. (2006). From crisis to control: New standards for project management. *Ivey Business Journal*, 70, 1-4.
- [85] Coujard, J. L. (2003). Coordination inter-organisationnelle et relation au territoire: émergence de méta-organisations égalitaires et gouvernance locale. In *Rencontres internationales" Démocratie et Management local"*.
- [86] Malone, T. W., & Crowston, K. (1994). The interdisciplinary study of coordination. *ACM Computing Surveys (CSUR)*, 26(1), 87-119.
- [87] Dameron, S. (2003, June). Structuration de la coopération au sein d'équipes projet. In *XIIème Conférence Internationale de Management Stratégique, Tunis, Tunisie (Vol. 14)*.
- [88] Okhuysen, G. A., & Bechky, B. A. (2009). 10 coordination in organizations: an integrative perspective. *The Academy of Management Annals*, 3(1), 463-502.

- [89] Consoli, A., Tweedale, J., & Jain, L. (2006). The link between agent coordination and cooperation (pp. 11-19). Springer US.
- [90] Gersick, C. J., & Hackman, J. R. (1990). Habitual routines in task-performing groups. *Organizational behavior and human decision processes*, 47(1), 65-97.
- [91] Arrow, H., McGrath, J. E., & Berdahl, J. L. (2000). *Small groups as complex systems: Formation, coordination, development, and adaptation*. Sage Publications.
- [92] Stout, R. J., Salas, E., & Carson, R. (1994). Individual task proficiency and team process behavior: What's important for team functioning?. *Military psychology*, 6(3), 177.
- [93] Kozlowski, S. W., & Bell, B. S. (2003). Work groups and teams in organizations. *Handbook of psychology*.
- [94] Stout, R. J., Cannon-Bowers, J. A., Salas, E., & Milanovich, D. M. (1999). Planning, shared mental models, and coordinated performance: An empirical link is established. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 41(1), 61-71.
- [95] Berends, H., Garud, R., Debackere, K., & Weggeman, M. (2011). Thinking along: a process for tapping into knowledge across boundaries. *International Journal of Technology Management*, 53(1), 69-88.
- [96] Gerwin, D. (2004). Coordinating new product development in strategic alliances. *Academy of Management Review*, 29(2), 241-257.
- [97] Kretschmer, T., & Puranam, P. (2008). Integration through incentives within differentiated organizations. *Organization Science*, 19(6), 860-875.
- [98] Achelhi, H. (2007). *Le pilotage du processus d'émergence d'un réseau coopératif: analyse des réseaux de proximité géographique* (Doctoral dissertation, Vandoeuvre-les-Nancy, INPL).
- [99] Puranam, P., Raveendran, M., & Knudsen, T. (2012). Organization design: The epistemic interdependence perspective. *Academy of Management Review*, 37(3), 419-440.
- [100] McEvily, B., Perrone, V., & Zaheer, A. (2003). Trust as an organizing principle. *Organization science*, 14(1), 91-103.
- [101] Zollo, M., Reuer, J. J., & Singh, H. (2002). Interorganizational routines and performance in strategic alliances. *Organization Science*, 13(6), 701-713.
- [102] Nielsen, B. B. (2010). Multilevel issues in strategic alliance research. *Researching strategic alliances: Emerging issues*, 1-26.
- [103] Aggarwal, V. A., Siggelkow, N., & Singh, H. (2011). Governing collaborative activity: interdependence and the impact of coordination and exploration. *Strategic Management Journal*, 32(7), 705-730.
- [104] Müller, D. (2010). Alliance coordination, dysfunctions, and the protection of idiosyncratic knowledge in strategic learning alliances.
- [105] Kale, P., Dyer, J. H., & Singh, H. (2002). Alliance capability, stock market response, and long-term alliance success: the role of the alliance function. *Strategic Management Journal*, 23(8), 747-767.
- [106] Dyer, J. H., Kale, P., & Singh, H. (2001). How to make strategic alliances work. *MIT Sloan management review*, 42(4), 37.
- [107] Bamford, J., & Ernst, D. (2002). Managing an alliance portfolio. *The McKinsey Quarterly*, 3(8), 25-35.
- [108] Platje, A., & Seidel, H. (1993). Breakthrough in multiproject management: how to escape the vicious circle of planning and control. *International Journal of Project Management*, 11(4), 209-213.
- [109] Platje, A., Seidel, H., & Wadman, S. (1994). Project and portfolio planning cycle: project-based management for the multiproject challenge. *International Journal of Project Management*, 12(2), 100-106.
- [110] Rickert, A. (1995). Review of the third international opacity workshop and code comparison study. *Journal of Quantitative Spectroscopy and Radiative Transfer*, 54(1), 325-332.
- [111] Sull, D. N. (2001, August). FROM COMMUNITY OF INNOVATION TO COMMUNITY OF INERTIA: THE RISE AND FALL OF THE US TIRE INDUSTRY. In *Academy of Management Proceedings* (Vol. 2001, No. 1, pp. L1-L6). Academy of Management.
- [112] Reuer, J. J. (1999). Collaborative strategy: The logic of alliances. *Mastering Strategy*, 4, 12-13.
- [113] Dyer, J. H., Kale, P., & Singh, H. (2001). How to make strategic alliances work. *MIT Sloan management review*, 42(4), 37.
- [114] Gibbons, R. (1998). Incentives in organizations (No. w6695). National Bureau of Economic Research.
- [115] Baker, M. (2002). Forms of cooperation in dyadic problem-solving. *Revue d'Intelligence Artificielle*, 16(4-5), 587-620.
- [116] Bluedorn, A. C. (2002). *The human organization of time: Temporal realities and experience*. Stanford University Press.
- [117] Ancona, D., & Chong, C. L. (1996). Entrainment: Pace, cycle, and rhythm in organizational behavior.
- [118] Eisenhardt, K. M., & Brown, S. L. (1998). Competing on the edge: Strategy as structured chaos. *Long Range Planning*, 31(5), 786-789.
- [119] Schilke, O., & Goerzen, A. (2010). Alliance management capability: an investigation of the construct and its measurement. *Journal of Management*, 36(5), 1192-1219.

- [120] Kumar, R., & Nti, K. O. (1998). Differential learning and interaction in alliance dynamics: A process and outcome discrepancy model. *Organization science*, 9(3), 356-367.
- [121] Bamford, J., & Ernst, D. (2002). Measuring alliance performance. *McKinsey on Finance (Autumn 2002)*, McKinsey.
- [122] Hoffmann, W. H. (2005). How to manage a portfolio of alliances. *Long Range Planning*, 38(2), 121-143.
- [123] Parise, S., & Casher, A. (2003). Alliance portfolios: Designing and managing your network of business-partner relationships. *The Academy of Management Executive*, 17(4), 25-39.
- [124] Srikanth, K., & Puranam, P. (2014). The firm as a coordination system: Evidence from software services offshoring. *Organization Science*, 25(4), 1253-1271.
- [125] Okhuysen, G. A., & Bechky, B. A. (2009). 10 coordination in organizations: an integrative perspective. *The Academy of Management Annals*, 3(1), 463-502.
- [126] Kraut, R. E., Fussell, S. R., Brennan, S. E., & Siegel, J. (2002). Understanding effects of proximity on collaboration: Implications for technologies to support remote collaborative work. *Distributed work*, 137-162.
- [127] Lichtenthaler, U., & Lichtenthaler, E. (2004). Alliance functions: implications of the international multi-R&D-alliance perspective. *Technovation*, 24(7), 541-552.
- [128] Brockhoff, K. (1998). Technology management as part of strategic planning—some empirical results. *R&D Management*, 28(3), 129-138.
- [129] Swarts, J. (2004, October). Cooperative writing: achieving coordination together and apart. In *Proceedings of the 22nd annual international conference on Design of communication: The engineering of quality documentation* (pp. 83-89). ACM.
- [130] Gulati, R., Wohlgezogen, F., & Zhelyazkov, P. (2012). The two facets of collaboration: Cooperation and coordination in strategic alliances. *The Academy of Management Annals*, 6(1), 531-583.
- [131] Dameron, S. (2003, June). Structuration de la coopération au sein d'équipes projet. In *XIIème Conférence Internationale de Management Stratégique, Tunis, Tunisie (Vol. 14)*.
- [132] Das, T. K., & Teng, B. S. (1998). Between trust and control: Developing confidence in partner cooperation in alliances. *Academy of management review*, 23(3), 491-512.
- [133] Heath, C., & Staudenmayer, N. (2000). Coordination neglect: How lay theories of organizing complicate coordination in organizations. *Research in organizational behavior*, 22, 153-191.
- [134] Luo, Y. (2002). Contract, cooperation, and performance in international joint ventures. *Strategic management journal*, 23(10), 903-919.
- [135] Achelhi, H., Truchot, P., Aoussat, A., & Boly, V. (2006). L'émergence d'un réseau coopératif. In *XVIème conférence Internationale de Management Stratégique, Annecy/Genève*.
- [136] Kretschmer, T., & Puranam, P. (2008). Integration through incentives within differentiated organizations. *Organization Science*, 19(6), 860-875.
- [137] Neuville, J. P. (1998). La tentation opportuniste: figures et dynamique de la coopération interindividuelle dans le partenariat industriel. *Revue française de sociologie*, 71-103.
- [138] Grossetti, M. (1999). Une théorie relationnelle de la proximité. *Journées de la proximité—Toulouse—19 et*.
- [139] Baudry, B. (1995). *L'économie des relations interentreprises*. Ed. La Découverte.
- [140] Gulati, R., Wohlgezogen, F., & Zhelyazkov, P. (2012). The two facets of collaboration: Cooperation and coordination in strategic alliances. *The Academy of Management Annals*, 6(1), 531-583.
- [141] Di Junyan, Y. J., & Yan, Q. *Analysis of Enterprise Ideological and Political Education System: the Foundation of the Enterprise Internal Image Management*.
- [142] N'Gahane, P., De Rongé, Y., Cerrada Cristia, K., Henaux, C., & Léonard, E. (1996). *Dictionnaire de gestion*.
- [143] Volberda, H. W. (2004). Crisis in strategy: fragmentation, integration or synthesis. *European Management Review*, 1(1), 35-42.
- [144] Andersen T.J., (2000), «Strategic planning, autonomous and corporate performance», *Long Range Planning*, vol.33 (2).
- [145] Tapinos, E., Dyson, R. G., & Meadows, M. (2005). The impact of performance measurement in strategic planning. *International Journal of Productivity and Performance Management*, 54(5/6), 370-384.
- [146] Glaister, K. W., Dincer, O., Tatoglu, E., Demirbag, M., & Zaim, S. (2008). A causal analysis of formal strategic planning and firm performance: evidence from an emerging country. *Management Decision*, 46(3), 365-391.
- [147] Krause, D. R., Handfield, R. B., & Tyler, B. B. (2007). The relationships between supplier development, commitment, social capital accumulation and performance improvement. *Journal of operations management*, 25(2), 528-545.
- [148] Vangen, S., & Huxham, C. (2003). Nurturing collaborative relations Building trust in interorganizational collaboration. *The Journal of Applied Behavioral Science*, 39(1), 5-31.
- [149] Marks, M. L., & Mirvis, P. H. (2001). Managing mergers, acquisitions, and alliances: Creating an effective transition structure. *Organizational dynamics*, 28(3), 35-47.

- [150] Mascarenhas, B., & Koza, M. P. (2008). Develop and nurture an international alliance capability. *Thunderbird International Business Review*, 50(2), 121-128.
- [151] Hutt, M. D., Stafford, E. R., Walker, B. A., & Reingen, P. H. (2000). Case study: defining the social network of a strategic alliance. *MIT Sloan Management Review*, 41(2), 51.
- [152] Sims, N., Harrison, R., & Gueth, A. (2001). Managing alliances at Lilly. *IN VIVO-NEW YORK-*, 19(6), 71-77.
- [153] Standifer, R., & Bluedorn, A. (2006). Alliance management teams and entrainment: Sharing temporal mental models. *Human Relations*, 59(7), 903-927.
- [154] Dyer, J. H., Powell, B. C., Sakakibara, M., & Wang, A. J. (2007, August). THE DETERMINANTS OF SUCCESS IN R&D ALLIANCES. In *Academy of Management Proceedings* (Vol. 2007, No. 1, pp. 1-6). Academy of Management.
- [155] Yin, X., & Shanley, M. (2008). Industry determinants of the “merger versus alliance” decision. *Academy of Management Review*, 33(2), 473-491.
- [156] Yin, S. (2010). Alliance formation among perfectly complementary suppliers in a price-sensitive assembly system. *Manufacturing & Service Operations Management*, 12(3), 527-544.
- [157] Gummesson, E. (2000). *Qualitative methods in management research*. Sage.
- [158] David, A., & Hatchuel, A. (2007, June). Des connaissances actionnables aux théories universelles en gestion. In *Actes de la 16ème Conférence de l'Association Internationale de Management Stratégique*, Montréal.
- [159] Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management journal*, 32(3), 543-576.
- [160] Jönsson, S. (1991). Role making for accounting while the state is watching. *Accounting, Organizations and Society*, 16(5), 521-546.
- [161] Jensen, G. H., & DiTiberio, J. K. (1989). *Personality and the Teaching of Composition* (Vol. 20). Ablex Pub.
- [162] Corbin, J., & Strauss, A. (2008). *Basics of qualitative research* 3e.
- [163] Murray, C. (2008). Social Capital and Cooperation in Central and Eastern Europe-A Framework for Research on Governance. *Journal of Rural Cooperation*, 36(1), 3.
- [164] Dubé, L., & Paré, G. (2003). Rigor in information systems positivist case research: current practices, trends, and recommendations. *MIS quarterly*, 597-636.
- [165] Mansell, G. (1991). Action research in information systems development. *Information Systems Journal*, 1(1), 29-40.
- [166] Wysocki, R. K., Beck, R., & Crane, D. (2002). Extensions to multiple projects. In J. S. Pennypacker & L. D. Dye (Eds.), *Managing multiple projects*. New York: Marcel Dekker Inc.
- [167] Bonaccorsi, A., & Piccaluga, A. (1994). A theoretical framework for the evaluation of university-industry relationships. *R&D Management*, 24(3), 229-247.
- [168] Brockhoff, K., & Teichert, T. (1995). Cooperative R&D and partners' measures of success. *International Journal of Technology Management*, 10(1), 111-123.
- [169] Lawrence, T. B., Hardy, C., & Phillips, N. (2002). Institutional effects of interorganizational collaboration: The emergence of proto-institutions. *Academy of management journal*, 45(1), 281-290.
- [170] Rodríguez, C. M. (2005). Emergence of a third culture: shared leadership in international strategic alliances. *International Marketing Review*, 22(1), 67-95.